Quality Measurement 103

Measurement in Action

Improving Outcomes Through the Use of Quality Measures
Before We Begin…

• **This Webinar does not have a LIVE Q&A session.** However, throughout this webinar, questions can be asked via the Q&A icon on the toolbar. All questions will be compiled and responded to via email.

• **Continuing Education Credit** will be provided to attendees upon completion of a post-webinar survey. In order to complete this post-webinar survey, please do not close your browser at the end of the webinar.

• **Continuing Education Credit Letters** will be sent within 10 business days to the email used for registration.
MEASURE and IMPROVE
The Golden Rules of Measurement for Improvement

Identify AIM(s)  
Measure Over Time  
Maintain a Population Health Focus
Learning Objectives

Participants will:

• Learn how quality measures are being used at the plan and program levels to support improvement and outcomes.

• Explore the Delta Dental of Massachusetts Prevention Focused program implemented to improve oral health for adults and children.

• Discover the key components of the Boston Children’s Hospital Early Childhood Caries Collaborative Project implemented to reduce the incidence of early childhood caries.
Speakers

Linda Vidone, DMD
Vice President, Clinical Management
Delta Dental of Massachusetts

Man Wai Ng, DDS, MPH
Dentist-in-Chief, Department of Dentistry
Boston Children’s Hospital
Associate Professor, Developmental Biology, Harvard School of Dental Medicine
Prevention Focused Program
Dental Disease Science

Dental Diseases
- Caries
- Periodontal Disease

Associated Medical Conditions
- Diabetes
- Cardiovascular disease
- Coronary artery disease

FACT: Dental Disease Nearly 100% Preventable
Dental Spending Expected to Keep Climbing

Traditional Approach to Dental Benefits

- Traditional approach:
  - Benefit programs are usually one-size-fits-all
  - Resources not targeted for higher-risk patients

- Obstacles to innovation:
  - No diagnostic codes to measure presence and severity of disease
  - No code-set to capture risk status of patients
Solution: Prevention Focused Program

• Benefits and supporting programs that are more patient centered and effective, which can produce improved health outcomes and help control costs.

• Thoughtful integration of benefits, programs and policies to promote prevention-focused oral healthcare in order to achieve our vision of a world free of dental disease.

• Empowers dentists and engages members to take a more active role in improving oral health by providing coverage and practical information about important preventive services.

• Our philosophy is to improve oral health and control costs.
Provider Incentive Program

An innovative program that helps dentists do what they care about most, improve oral health.
Quality in Health Care

- The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.
- This contains two concepts: measurement and knowledge.

# Rating System for Scientific Evidence

## Table 1

**System used for grading the evidence.**

<table>
<thead>
<tr>
<th>GRADE</th>
<th>CATEGORY OF EVIDENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia</td>
<td>Evidence from systematic reviews of randomized controlled trials</td>
</tr>
<tr>
<td>Ib</td>
<td>Evidence from at least one randomized controlled trial</td>
</tr>
<tr>
<td>IIa</td>
<td>Evidence from at least one controlled study without randomization</td>
</tr>
<tr>
<td>IIb</td>
<td>Evidence from at least one other type of quasi-experimental study</td>
</tr>
<tr>
<td>III</td>
<td>Evidence from nonexperimental descriptive studies, such as comparative studies, correlation studies, cohort studies and case-control studies</td>
</tr>
<tr>
<td>IV</td>
<td>Evidence from expert committee reports or opinions or clinical experience of respected authorities</td>
</tr>
</tbody>
</table>

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## Table 2

**System used for classifying the strength of recommendations.**

<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>STRENGTH OF RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Directly based on category I evidence</td>
</tr>
<tr>
<td>B</td>
<td>Directly based on category II evidence or extrapolated recommendation from category I evidence</td>
</tr>
<tr>
<td>C</td>
<td>Directly based on category III evidence or extrapolated recommendation from category I or II evidence</td>
</tr>
<tr>
<td>D</td>
<td>Directly based on category IV evidence or extrapolated recommendation from category I, II or III evidence</td>
</tr>
</tbody>
</table>

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## Fluoride Recommendation

<table>
<thead>
<tr>
<th>RISK CATEGORY</th>
<th>AGE CATEGORY FOR RECALL PATIENTS</th>
<th>6 to 18 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 6 Years</td>
<td>6 to 18 Years</td>
</tr>
<tr>
<td></td>
<td>Recommendation</td>
<td>Grade of Evidence</td>
</tr>
<tr>
<td>Low</td>
<td>May not receive additional benefit from professional topical fluoride application&lt;br&gt;</td>
<td>Ia</td>
</tr>
<tr>
<td>Moderate</td>
<td>Varnish application at 6-month intervals</td>
<td>Ia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ia</td>
</tr>
<tr>
<td>High</td>
<td>Varnish application at 6-month intervals&lt;br&gt;Varnish application at 3-month intervals</td>
<td>Ia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ia</td>
</tr>
</tbody>
</table>

Professional applied topical fluoride: Evidence-based clinical recommendations. ADA Council on Scientific Affairs. JADA 2006;137;1151-1159
Frequency for Periodontal Maintenance (PM)

- Many patients presenting with recurrent gingivitis without additional attachment loss after definitive periodontal therapy may be adequately maintained with PM performed semiannually. However, for most patients with a history of periodontitis, numerous clinical studies suggest that PM should be performed at intervals of less than 6 months.

- In general, data suggest that most patients with a previous history of periodontitis should obtain PM at least four times per year, since that interval will result in a decreased likelihood of progressive disease, compared to patients receiving PM on a less frequent basis.

Children’s Compliance with Recommended Fluoride Treatment—Prior to Program
Adult Compliance with Recommended Treatment – Prior to Program

First goal is to increase the percentage of perio patients receiving at least 2 maintenances per year.
Provider Receive a Patient Report

Step 1

- Dentists in the MA PPO network receive reports identifying high-risk members
- Children ages 6-18 with a history of cavities were targeted for fluoride treatments
- Adults ages 19 and older with a history of gum disease were targeted for periodontal maintenance
## The PreventistrySM Incentive

PREVENTISTRY PATIENT REPORT FOR HIGHER-RISK CHILDREN AND ADULTS
ERICA MARTIN, DMD, FC
66238799-01
TREATMENT FROM JANUARY 1, 2010, THROUGH JUNE 30, 2010

### CHILDREN AT HIGHER RISK FOR CARIES

<table>
<thead>
<tr>
<th>LAST NAME</th>
<th>FIRST NAME</th>
<th>DATE OF BIRTH</th>
<th>TREATMENT</th>
<th>DATE OF TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARENAS</td>
<td>MARIA</td>
<td>3/5/95</td>
<td>FLUORIDE TREATMENT</td>
<td>2/16/10</td>
</tr>
<tr>
<td>BARSTOW</td>
<td>MARTIN</td>
<td>3/5/95</td>
<td>FLUORIDE TREATMENT</td>
<td>6/30/10</td>
</tr>
<tr>
<td>CONNORS</td>
<td>JESSICA</td>
<td>3/8/96</td>
<td>FLUORIDE TREATMENT</td>
<td>2/16/10</td>
</tr>
<tr>
<td>DUSTIN</td>
<td>OWEN</td>
<td>3/13/94</td>
<td>FLUORIDE TREATMENT</td>
<td>6/11/10</td>
</tr>
<tr>
<td>GLEASON</td>
<td>HARRY</td>
<td>12/9/93</td>
<td>FLUORIDE TREATMENT</td>
<td>5/10/10</td>
</tr>
<tr>
<td>HARRISON</td>
<td>MICHAEL</td>
<td>11/11/91</td>
<td>FLUORIDE TREATMENT</td>
<td>3/10/10</td>
</tr>
<tr>
<td>HARRISON</td>
<td>SAMUEL</td>
<td>12/9/93</td>
<td>FLUORIDE TREATMENT</td>
<td>4/21/10</td>
</tr>
<tr>
<td>LEWISON</td>
<td>EVELYN</td>
<td>10/7/99</td>
<td>FLUORIDE TREATMENT</td>
<td>5/21/10</td>
</tr>
<tr>
<td>NESTOR</td>
<td>CONNOR</td>
<td>8/19/01</td>
<td>FLUORIDE TREATMENT</td>
<td>5/21/10</td>
</tr>
<tr>
<td>REMY</td>
<td>DAVID</td>
<td>8/19/01</td>
<td>FLUORIDE TREATMENT</td>
<td>5/21/10</td>
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<tr>
<td>SYMONDS</td>
<td>EUGENE</td>
<td>10/7/99</td>
<td>FLUORIDE TREATMENT</td>
<td>5/21/10</td>
</tr>
</tbody>
</table>

**NUMBER OF HIGHER-RISK CHILDREN:** 12
**NUMBER OF HIGHER-RISK CHILDREN TREATED:** 8
**PERCENT OF HIGHER-RISK CHILDREN TREATED:** 67%

Includes claims processed through July 31, 2010

### ADULTS AT HIGHER RISK FOR PERIODONTAL DISEASE

<table>
<thead>
<tr>
<th>LAST NAME</th>
<th>FIRST NAME</th>
<th>DATE OF BIRTH</th>
<th>TREATMENT</th>
<th>DATE OF TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMELYN</td>
<td>VANESSA</td>
<td>3/10/53</td>
<td>MAINTENANCE</td>
<td>1/4/10</td>
</tr>
<tr>
<td>DISANTOS</td>
<td>STEVEN</td>
<td>7/31/72</td>
<td>MAINTENANCE</td>
<td>2/11/10</td>
</tr>
<tr>
<td>GREGORIO</td>
<td>LESTER</td>
<td>5/18/65</td>
<td>MAINTENANCE</td>
<td>5/12/10</td>
</tr>
<tr>
<td>KOUZNETSOV</td>
<td>VLADIMIR</td>
<td>3/26/10</td>
<td>MAINTENANCE</td>
<td>3/25/10</td>
</tr>
<tr>
<td>KELLY</td>
<td>MEGAN</td>
<td>5/12/47</td>
<td>MAINTENANCE</td>
<td>6/13/10</td>
</tr>
<tr>
<td>MAZZOTTA</td>
<td>MICHAEL</td>
<td>2/18/77</td>
<td>MAINTENANCE</td>
<td>1/25/10</td>
</tr>
<tr>
<td>MELLON</td>
<td>BARDARA</td>
<td>1/2/53</td>
<td>MAINTENANCE</td>
<td>1/25/10</td>
</tr>
<tr>
<td>OESTERHAUS</td>
<td>SOPHIA</td>
<td>6/19/56</td>
<td>MAINTENANCE</td>
<td>1/25/10</td>
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<tr>
<td>PRATT</td>
<td>MAUREEN</td>
<td>10/10/43</td>
<td>MAINTENANCE</td>
<td>1/25/10</td>
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<tr>
<td>STODDARD</td>
<td>HELEN</td>
<td>12/14/81</td>
<td>MAINTENANCE</td>
<td>1/25/10</td>
</tr>
</tbody>
</table>

**NUMBER OF ADULTS AT RISK FOR PERIODONTAL DISEASE:** 10
**NUMBER OF ADULTS AT RISK FOR PERIODONTAL DISEASE TREATED:** 0
**PERCENT OF ADULTS AT RISK FOR PERIODONTAL DISEASE TREATED:** 0%
The Incentive For Providers
Step 2

PREVENTISTRY INCENTIVE RESULTS
FOR THE PERIOD JANUARY 1 THRU JUNE 30, 2012

<table>
<thead>
<tr>
<th>TOPICAL FLUORIDE FOR HIGHER RISK CHILDREN</th>
<th>BONUS CALCULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Higher Risk Children</strong></td>
<td><strong>Goal</strong></td>
</tr>
<tr>
<td>Number Treated</td>
<td>152</td>
</tr>
<tr>
<td>Percentage Treated</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BONUS CALCULATION</th>
<th><strong>Level 1</strong></th>
<th><strong>Level 2</strong></th>
<th><strong>FLUORIDE BONUS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>45%</td>
<td>$604.00</td>
<td>$604.00</td>
<td>$1,368.00</td>
</tr>
<tr>
<td>65%</td>
<td>$604.00</td>
<td>$604.00</td>
<td>$1,368.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERIO MAINTENANCE FOR ADULTS WITH PERIODONTAL DISEASE</th>
<th>BONUS CALCULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Adults with Perio Disease</strong></td>
<td><strong>Goal</strong></td>
</tr>
<tr>
<td>Number Treated</td>
<td>20</td>
</tr>
<tr>
<td>Percentage Treated</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BONUS CALCULATION</th>
<th><strong>Level 1</strong></th>
<th><strong>Level 2</strong></th>
<th><strong>PERIO BONUS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>$200.00</td>
<td>$200.00</td>
<td>$400.00</td>
</tr>
<tr>
<td>75%</td>
<td>$200.00</td>
<td>$200.00</td>
<td>$400.00</td>
</tr>
</tbody>
</table>

| **Total Bonus** | **$1,768.00** |
| **Percent of Potential** | **88.7%** |

The Preventistry Program rewards dentists with financial incentives for achieving or exceeding specific goals based on the percentage of higher risk children and/or adults with periodontal disease who received the recommended preventive treatment. The results for your practice are above. Please note that we respect the confidentiality of your office’s data and will not share this information.

We would like to thank you for your participation in and dedication to the Preventistry Program. Our goal is to ensure that our higher risk members receive the preventive care that will help to keep them healthy. With your continued support, we can achieve that goal. We look forward to sharing your results for the next six-month time frame with you.

A check is enclosed in the amount of **$1,568.00**
- Percentage of high risk children receiving fluoride increased from 46% to 61%.
- Percentage of high risk adults receiving periodontal maintenance raised from 49% to 63%.
Timeline Incentive Program
Fluoride and Perio Maintenance

Focus groups of dentists and office managers

Sent list of higher risk patients

Measured performance for July-Dec. 2011
Paid Bonuses

Measured performance for Jan–June 2012
Paid Bonuses

Summer 2010
Fall 2010
Feb. 2011
August 2011
Feb. 2012
August 2012

Introduced to Network with informational materials

Measured performance for Jan-June 2011
Sent Reports

Introduced Incentive July-Dec. 2011
## Prevention Incentive Results

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Percent of higher risk children receiving fluoride</strong></td>
<td>61%</td>
<td>60%</td>
<td>46%</td>
</tr>
<tr>
<td><strong>Percent of perio patients receiving maintenance</strong></td>
<td>64%</td>
<td>62%</td>
<td>49%</td>
</tr>
<tr>
<td><strong>Top Office Bonus Amount</strong></td>
<td>$7,947</td>
<td>$6,714</td>
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</tr>
<tr>
<td><strong>Top 10 Offices Averaged</strong></td>
<td>$4,770</td>
<td>$4,120</td>
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</tr>
<tr>
<td><strong>Top 25 Offices Averaged</strong></td>
<td>$3,098</td>
<td>$2,699</td>
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</tr>
<tr>
<td><strong>Top 50 Offices Averaged</strong></td>
<td>$2,076</td>
<td>$2,024</td>
<td></td>
</tr>
<tr>
<td><strong>Top 100 Offices Averaged</strong></td>
<td>$1,362</td>
<td>$1,340</td>
<td></td>
</tr>
<tr>
<td><strong>Average for all offices receiving bonus</strong></td>
<td>$350</td>
<td>$362</td>
<td></td>
</tr>
<tr>
<td><strong>Percent of dentists receiving bonus for fluoride</strong></td>
<td>62%</td>
<td>58%</td>
<td></td>
</tr>
<tr>
<td><strong>Percent of dentists receiving bonus for perio</strong></td>
<td>78%</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td><strong>Percent of offices receiving any bonus</strong></td>
<td>85%</td>
<td>83%</td>
<td></td>
</tr>
<tr>
<td><strong>Number of locations receiving fluoride bonus</strong></td>
<td>430</td>
<td>385</td>
<td>12%</td>
</tr>
<tr>
<td><strong>Number of locations receiving perio bonus</strong></td>
<td>506</td>
<td>471</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Number of offices receiving any bonus</strong></td>
<td>627</td>
<td>580</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Total fluoride bonus</strong></td>
<td>$116,906</td>
<td>$109,359</td>
<td></td>
</tr>
<tr>
<td><strong>Total Perio Bonus</strong></td>
<td>$102,160</td>
<td>$100,310</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL BONUSES</strong></td>
<td><strong>$219,066</strong></td>
<td><strong>$209,669</strong></td>
<td></td>
</tr>
</tbody>
</table>

- **Improved quality of care**
- **Reimbursed for quality not just quantity**

*Increase in awards*
Prevention Focused Program

- We’re creating powerful incentives to increase preventive care.
- We’re increasing access to quality, affordable care.
- We’re helping at-risk patients take charge of their oral health.
- We’re working to eradicate dental disease.
Early Childhood Caries (ECC) Collaborative
ECC Collaborative

Purpose

• Reduce ECC in children at Boston Children’s Hospital and St. Joseph Health Services as a demonstration project
• Following favorable outcomes, launched two additional phases with over 35 additional dental practices

Improvement Goal

• Facilitate adoption of disease management (DM) approaches into clinical practice

Key Strategies and Processes

• Learning collaborative model
• Institute for Healthcare Improvement’s Breakthrough Series
• Project Tools and Resources (logic models, risk assessments, patient goal-setting, and fluoride use)
• Disease management clinical protocol
Opportunity for Improvement

**DM**

- Focused prevention
- Assess and manage risk
- Support behavior change
- Repair defects

**What we know**

**DESIRED**

- Applying evidence
- Changing processes
- Training workforce
- Educating parents
- Using information technology
- Aligning payment

**THE GAP**

- Prevention essentially the same for everyone
- Little focus on self-management
- 6-month recall visits
- Restore teeth

**What we do**

**ACTUAL**
What did we do?

**ECC Collaborative**

- **2008**
  - Phase I: 18 month risk-based CDM model was developed, tested and implemented as a demonstration project at Boston Children’s Hospital and St. Joseph Hospital (RI)

- **2010**
  - Phase 2: 18-month QI Learning Collaborative with 7 teams to further test and refine the CDM clinical protocol

- **2012**
  - Phase 3: 18 month QI Learning Collaborative launched with over 30 teams across the US to engage dental practices to adopt and spread CDM

- **2015**
  - ECC Virtual Learning Sessions (Real-time webinars and on-demand recordings)
  - Clinician Companion to Dental Caries Management

*Funded by DentaQuest Institute*
**Team-based ECC DM Clinical Protocol**

**Initial or Recare Visit**
- Review medical and dental history (DA/H/D)
- Perform abbreviated CRA (DA/H/D)
- Perform **Clinical exam** (D)
- Perform **Caries charting** (DA/H/D)
- Take radiographs if indicated and possible (DA/H)
- Assess cooperation (DA/H/D)
- Apply SDF (D) or FV (H)

**Inclusion Criteria**
- At least one tooth with caries (cavitation and/or demineralization)
- Or a history of caries

**Effective Communication and Self-Management Goal Setting**
- **Explain caries process** and causes of ECC (DA/H/D)
- Coaching and **SM goal setting** (DA/H/D)
- Use Handouts and Flipcharts (H)

**Chronic Disease Management Visits**
- Perform abbreviated CRA (DA/H/D)
- Perform **Clinical exam** (D)
- Perform **Caries charting** (DA/H/D)
- Take radiographs if indicated and possible (DA/H)
- Revisit **SM goals** (DA/H/D)
- Assess cooperation (DA/H/D)
- Apply SDF (D) or FV (H)

**Restorative/Surgical Treatment as indicated and desired**
- Restorative treatment (D)
- ITR (D)
- Sealants (H or D)
- GA/OR or sedation (D)

**For Children at High Risk**
Next DM visit in 1-3 months

**For Children at Medium Risk**
Next DM visit in 3-6 months

**For Children at Low Risk**
Next DM visit in 6-12 months

(H) = Hygienist’s role  
(D) = Dentist’s role  
(DA) = Dental assistant’s role  
ECC = early childhood caries  
ITR = interim therapeutic restoration  
DM = disease management  
CRA = caries risk assessment  
SDF = silver diamine fluoride  
GA/OR = general anesthesia/operating room  
FV = fluoride varnish  
SM = self management

*Funded by DentaQuest Institute*
Model for Improvement

- **Aim**
- **Measures**
- **Change**
- **PDSA Testing Cycle**

1. **What are we trying to accomplish?**
2. **How will we know that a change is an improvement?**
3. **What change can we make that will result in improvement?**
### Essential Partners

- Dental Practices
- Hospitals, Clinics, Private Practices, and Dental Schools
- Dental Providers
- Parents

### Key Measures

- Reduce % of children with newly cavitated lesions
- Reduce % of children with pain
- Reduce % of children with referrals to the operating room

### Observed Improvements

<table>
<thead>
<tr>
<th>Phase</th>
<th>Location</th>
<th>Reduction in New Cavitation</th>
<th>Reduction in Pain</th>
<th>Reduction in Referrals to OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Boston Children’s</td>
<td>65.3%</td>
<td>38.2%</td>
<td>47.8%</td>
</tr>
<tr>
<td>Phase 1</td>
<td>St. Joseph</td>
<td>57.5%</td>
<td>23.3%</td>
<td>67.8%</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Aggregate</td>
<td>28%</td>
<td>27%</td>
<td>36%</td>
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</tbody>
</table>
ECC Phase III Measures Structure Diagram

**Denominators**
- D1 Active* patients in the practice >= 6 and < 60 months of age
- D2 Active patients with visits in the measurement month
- D3 Active patients with risk = ‘high’ at any visit after project start (‘ECC patients’)
- D4 ECC patients with visits in the measurement month

**Numerators**
- N1 Active patients with risk status assessed at most recent DM visit during the measurement month
- N2 ECC patients whose most recent risk assessment was ‘medium’ or ‘low’
- N3 ECC patients with new cavitation at their most recent DM visit (>3mo after initial DM visit)
- N4 ECC patients who presented with pain due to untreated decay at their most recent DM visit
- N5 ECC patients referred for OR restorations or IV or oral sedation at most recent DM visits
- N6 ECC patients with on-time DM visits
- N7 ECC patients with self-management goals reviewed/coached at DM visit

**Measures (driver)**
- M1 Percent of active patients with risk assessed in measurement month (S4)
- M2 Percent of ECC patients with decreased risk status (D1a)
- M3 Percent of ECC patients with new cavitation (D1)
- M4 Percent of ECC patients with pain (C2)
- M5 Percent of ECC patients with OR or sedation (C3)
- M6 Percent of ECC patients with on-time visits (S6)
- M7 Percent of ECC patients with SMBG goals reviewed in meas month (S9)

**Definitions**
- *Measurement month* = month for which data are complete, e.g. August 2012, sampled after August 31, 2012.
- *Active patient* = Patients between the age of 6 and 60 months of age with a comprehensive oral exam within 18 months of the last day of the measurement month, unless otherwise excluded.
- *Initial Disease Management (DM) Visit* = The visit after project start at which the patient was first designated as ‘high’ risk.
- *Disease Management (DM) Visit* = Any visit where the child’s current risk status should be assessed, include billable exams, restorative visits, and non-billable, short-interval visits for high risk patients. This includes all diagnostic or preventive visits other than emergency visits.
- *Dummy Code* = Non-ADA codes used in electronic dental records systems (EDRs) to record events such as self-management goals review.

**Notes**
*Sites that perform sedation on-site should consider these patients as ‘self-referrals’ and count them accordingly*
Coding in Dentrix Enterprise
ECC Team Reporting Cycle

"Measurement Month"
- Data entry - procedures
- PDSA tracking

Data Deadline
- Aggregator generates dashboard
- Team meets, updates progress report
- Upload 3 files to DQA

Assessments Distributed
- Feedback available for review

Team receives assessment score and feedback

End of month

2nd Friday of every month

Last work day of measurement month

EDR Client Meds' Import Mode Data Entry

Registry Mode

Paper visit form

Aggregator

Dashboard

DQA

Team Progress Report

PDSA Log
Aggregate Process Measures

Pct Risk Assessed

Pct SMG

Pct On Time
Data Use

- Evaluate practice patterns in total and consistency of practice among providers
- Recall patients due for DM visits by caries risk by running reports
  - High risk within 3 months
  - Med risk within 6 months
  - Low risk within 12 months
ECC Collaborative

Challenges/Strategies to Overcome Them

- Time Constraints
- Appointment No-Shows
- Data Collection Burden
- Staff and Leadership Buy-in
- Lack Reimbursement

Collaborative Impact

- Since 2008, DentaQuest Institute has invested close to $1 million in the successful learning collaborative
- Accelerated adoption of DM of ECC as evidence-based clinical approach with use of QI and measurement strategies
- Promising results from ECC Phase III showed reduced risk of new caries among younger children and those with more DM visits
Perinatal and Infant Oral Health Care

Latest Revision
2016

Because restorative care to treat ECC often requires the use of sedation and general anesthesia with associated high costs and possible health risks, and because there is high recurrence of lesions subsequent to the procedures, there is now more emphasis on prevention and arrestment of the disease processes to manage ECC. Approaches include methods that have been referred to as (1) chronic disease management, which includes parent engagement to facilitate preventive measures and temporary restorations to postpone advanced restorative care, (2) active surveillance, which emphasizes careful monitoring of caries progression and establishment of a prevention program in children with incipient lesions, and (3) interim therapeutic restorations (ITR) that temporarily restore teeth in young children until a time when traditional cavity preparation and restoration is possible.
CDM-ECC FRAMEWORK

- Not a dental treatment, but a framework under which the clinician can better manage children with dental disease
- Can useful to buy time for the child to reach an age and developmental status to cooperate for conventional in-office treatment
- In some instances, GA or sedation may be necessary
- **In all instances**, the CDM framework calls upon the clinician and the family to maintain an active role in address disease etiology

Conclusion: ECC Collaborative has been Impactful

**Disease Management**

- Can be implemented into clinical practice
- Has strong potential to improve children’s oral health
- Can defer restorative treatment (under sedation or GA)
- Should be included in the clinician’s toolbox of ECC treatment
- Requires and will benefit from evolving healthcare delivery and financing systems
- QI and measurement strategies are useful to facilitate adoption and spread
Interested in Quality Improvement?

Think Big
Start Small
Scale Fast

For More Information

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